

Notice of Allowability

Application No.

10/010,732

Examiner

ALEXANDER BOAKYE

Applicant(s)

LO ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/05/2001.
2. ☒ The allowed claim(s) is/are 1-3,5-7,4,8-12,13-15,17,16,18-19,20-28,29-31,33-35,32,36-40,41-43,45,44,46-47,48-56,57-60,66,61-62,68,65,67,64,63; renumbered as 1-68 respectively.
3. ☒ The drawings filed on 12/05/01 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

1. The drawing filed on 04 November 2005 has been accepted by the examiner.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance: Claims 1-68 are considered allowable since when reading the claims in light of the specification, none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims. As to claims 1-7, the prior art of record does not teach a receive circuit, responsive to the clock signal to generate a receive serial stream from two receive data streams, the receive serial stream having a first operating frequency, each of the two receive data streams having a second operating frequency, the first operating frequency being about twice the second operating frequency. As to claims 8-12 and 20-24, the prior art of record does not teach a receive circuit, responsive to the clock signal, to generate a receive serial stream from two receive data streams, the receive serial stream having a first operating frequency, each of the two receive data streams having a second operating frequency, the first operating frequency being about twice second operating frequency.

As to claims 13-19, the prior art of record does not teach second means for sampling serial transmit data on the clock signal falling edge such that a second transmit a transmit serial stream is generated; means for generating a receive serial

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stream from two receive data streams the receive serial stream having a first operating frequency, each of the two receive data streams having second operating frequency, the first operating frequency being about twice the second operating frequency. As to claims 25-28, the prior art of record does not teach generating two transmit serial streams as a function of the serial transmit data, each of the transmit serial streams having a second operating frequency that is about one-half the first operating frequency; generating a receive serial stream from the two receive data streams, the receive serial stream having a first operating frequency, each of the two receive data streams having a second operating frequency, the first operating frequency being about twice the second operating frequency.

As to claims 29-35 and 36-40, the prior art of record does not teach a transmit circuit, responsive to the clock signal, to generate a transmit serial stream from two transmit data streams, the transmit serial stream having a first operating frequency, each of the two transmit data streams having a second operating frequency, first operating frequency being about twice the second operating frequency. As to claims 41-47, the prior art of record does not teach means for generating a transmit serial stream from two transmit data streams, the transmit serial stream having first operating frequency, each of the two transmit data streams having second operating frequency, the first operating frequency being about twice the second operating frequency.

As to claims 48-52, the prior art of record does not teach means for generating a transmit serial stream from two transmit data streams, the transmit serial stream having first operating frequency, each of the two transmit data streams having second

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operating frequency, the first operating frequency being about twice the second operating frequency. As to claims 53-56, the prior art of record does not teach generating two receive serial streams as a function of the serial receive data, each of the receive serial streams having a second operating frequency that is about one-half the first operating; generating a transmit serial stream from the two transmit data streams, the transmit serial stream having a first operating frequency, each of the two transmit data streams having a second operating frequency, the first operating frequency being about twice the second operating frequency.

As to claims 57-62, the prior art of record does not teach physical layer component to provide connectivity to the at least two Ethernet network ports, the physical layer component including two interface pins corresponding to each pair of the at least two Ethernet network ports; a media access control layer component including two interface pins corresponding to each pair of the at least two Ethernet network ports, to communicate uni-directional information with the physical layer component. As to claims 63-68, the prior art of record does not teach means for providing connectivity to the at least two Ethernet network ports, the connectivity means including two interface pins corresponding to each pair of the at least two Ethernet network ports; means for communicating uni-directional information with the connectivity means including two interface pins corresponding to each pair of the at least two Ethernet network ports. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany

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the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (571) 272-3183. The examiner can normally be reached on M-F from 8:30am to 6:00pm.

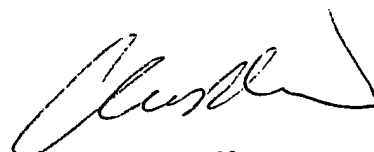
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (571) 272-3179. The Central Fax number is (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Electronic Business Center numbers 866-217-9197 and 703-305-3028.

Alexander Boakye

Patent Examiner

AB

12/07/05


CHI PHAM
SUPERVISORY PATENT EXAMINER
ELECTRONIC BUSINESS CENTER
12/9/05